ANGEL HSING-CHI HWANG

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RESEARCH BIO

Angel Hsing-Chi Hwang's research explores the role of emerging technology in the future of (team)work, culture, and human creativity. Through both quantitative and qualitative methods, she investigates how AI-empowered tools enhance innovation and team synergy on various platforms (e.g., virtual and mixed reality, text-based communication, and video chats), while addressing common challenges faced by marginalized individuals.

Keywords: Human-Centered AI (HCAI)
Human-Agent Teamwork (HAT)
Computer Supported Cooperated Work (CSCW)
Creativity in Teams & Creativity-Support Tools

EDUCATION

2019 - Present **CORNELL UNIVERSITY**
Ph.D. in Communication
Graduate Field: Human-Computer Interaction
Dissertation Committee: Andrea Stevenson Won (Chair), Susan R. Fussell, Malte F. Jung, and Mor Naaman

2018 - 2019 **HARVARD UNIVERSITY**
Graduate coursework in neuroscience and psychology

2018 **MASSACHUSETTS INSTITUTE OF TECHNOLOGY**
Certificate in Human-Computer Interaction for User Experience Design

2016 - 2018 **THE UNIVERSITY OF TEXAS AT AUSTIN**
Master's in Advertising and Applied Statistics
Graduate Certificate in Data Analytics and Visualization
Thesis: The Effect of Interactive Music on Consumer Engagement and Behavioral Intention
Advisors: Dr. Jeeyun Oh, Dr. Angeline Close Scheinbaum

2012 - 2016 **THE UNIVERSITY OF HONG KONG**
Bachelor of Business Administration
Double major: Marketing + Business, Design & Innovation (BDI)
Visiting programs:
- University of Illinois at Urbana-Champaign, Psychology
- University of California, Berkeley, 3D Animation & Film Production
- Savannah College of Art and Design, Advertising & Graphic Design
- University of North Texas, Communication Design

HONORS AND AWARDS

Data Science Fellowship	2021
(1 of the 3 students awarded university-wide)	
Cornell Center for Social Sciences, Cornell University	
Graduate Research Scholarship	2021 – 2023
(Research field: Social sciences; 1 of the 4 students awarded nation-wide)	
Ministry of Education	
Anson E. Rowe Award for Promising Graduate Student	2021
Cornell University	
ACM Human Factors in Computing Systems Best Paper Honorable Mention	2021
Association for Computing Machinery	
Ada Lovelace Fellowship Nominee	2020
Microsoft Research	
Graduate Student Grant for Media Studies	2020 – 2021
Cornell University	
Graduate Teaching & Research Assistantship	2019 – Present
Cornell University	
Graduate Teaching Fellowship	2017 – 2018
University of Texas at Austin	
HKU Foundation Scholarship for Outstanding International Students,	2013 – 2016
University of Hong Kong	
Bachelor of Business Administration First Division Honor	2015 – 2016
University of Hong Kong	
Scholarship for Summer Study Abroad Program	2014
University of Hong Kong	
Yu Pang Lin Entrance Scholarships	2012
University of Hong Kong	

PUBLICATIONS

PEER-REVIEWED CONFERENCE PAPERS AND PROCEEDINGS
(*co-authorship with equal contribution)

Hwang, A. H.-C. (forthcoming). Individuality in Human-Centered AI. In *Workshop on "HCAI: Human Centered AI."* The 35th Conference on Neural Information Processing Systems *(NeurIPS 2021)*.

Hwang, A. H.-C. & Won, A. S. (2021) Group- and individual-level successes in human-agent teams: From trade-off to win-win. In *Workshop on "Human-Machine Partnerships in the Future of Work: Exploring the Role of Emerging Technologies in Future Workplaces."* In *Proceedings of the ACM on Human-Computer Interaction (CSCW 2021)*.

Hwang, A. H.-C.*, Wang, C. Y.*, Yang, Y. Y., Won, A. S. (2021) Hide and seek: Choices of virtual backgrounds in video chats and their effects on perception. In *Proceedings of the ACM on Human-Computer Interaction (CSCW 2021)*.

Hwang, A. H.-C., Won, A. S. (2021) IdeaBot: Social Facilitation in Human-Machine Team Creativity. *The ACM 2021 Conference on Human Factors in Computing Systems (CHI 2021)*.
  🏵 *Honorable Mention (< top 5% of all accepted paper)*

Hwang, A. H.-C., Sun, Y., McKee, C., & Won, A. S. (2020, March). Real or Surreal: A Pilot Study on Creative Idea Generation in MR vs. VR. In *Proceedings of 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)*.

Hwang, A. H.-C., Sun, Y., Tamir, N., & Won, A. S. (2020, March). Pain Experience in Social VR: Comparing Companionship from Close Others and Stranger. In *Proceedings of 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)*.

Chan, C.*, Hwang, A. H.-C.*, Sun, D., Birckhead, B., & Won, A. S. (2020, March). Minimal Embodiment: Effects of a Portable Version of a Virtual Disembodiment Experience on Fear of Death. In *Proceedings of 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)*.

Hwang, A. H.-C. & Oh, J. (2019, February). When Consumer Involvement Matters: The Effect of Interactive Music on Consumer Experience and Purchase Intention. *Proceedings of 2019 American Marketing Association Conference (AMA)*.

Hwang, A. H.-C. & Oh, J. (2018, August). Can Interactive Music Drive Your Online Shopping Cart? An Experimental Study of Consumer Engagement and Behavioral Intention. *Proceedings of 2018 American Marketing Association Conference (AMA)*.

PEER-REVIEWED JOURNAL ARTICLES

Oh, J. & Hwang, A. H.-C. (in press). How interactive data visualization enhances the persuasiveness of COVID-19 news stories: The mediating role of fear and the moderating role of political orientation. *Journal of Broadcasting & Electronic Media.*

Oh, J., Lim, H. Y., Hwang, A. H.-C. (2021). How Interactive Storytelling Persuades: The Mediating Role of Website Contingency and Narrative Transportation. *Journal of Broadcasting & Electronic Media*. doi

Oh, J., Hwang, A. H.-C., Lim, H. Y. (2020). How Interactive Data Visualization and Users' BMI (Body Mass Index) Influence Obesity Prevention Intentions: The Mediating Effect of Cognitive Absorption. *Health Communication*. doi

Hwang, A. H.-C, Oh, J., Scheinbaum, A. C. (2020). Interactive music for multisensory e-commerce: The moderating role of online consumer involvement in experiential value, cognitive value, and purchase intention. *Psychology & Marketing*, 1– 26, doi

Hwang, A. H.-C., & Oh, J. (2020). Interacting with background music engages E-Customers more: The impact of interactive music on consumer perception and behavioral intention. *Journal of Retailing and Consumer Services*, 54, doi.

MANUSCRIPTS UNDER REVIEW OR IN PREPARATION

(*co-authorship with equal contribution)

Herman, L. M.* & Hwang, A. H.-C.* (R & R). In the Eye of the Beholder: A Viewer-Defined Conception of Online Visual Creativity. *New Media & Society.*

Hwang, A. H.-C.*, Kim, J.*, Lobo, S. N., Shu, Y., & Won, A. S. (R & R). Being there to learn: Narrative style and cross-platform comparison for 360-degree educational videos. *The ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW).*

Hwang, A. H.-C. & Oh, J. (under review). Subtle yet Impactful: Interactive Visualizations in COVID-19 News Content Influence Implicit and Explicit Biases toward Asians. *Mass Communication & Society.*

Hwang, A. H.-C. (under review). Too Late to be Creative?: AI-Empowered Tools in Creative Processes. *The ACM Conference on Human Factors in Computing Systems (CHI).*

Hwang, A. H.-C. & Won, A. S. (under review). Should the Bot Be Smart?: Social Comparison in Human-Agent Teamwork. *The ACM Conference on Human Factors in Computing Systems (CHI).*

CONFERENCE PRESENTATION

([†] Conference moved online due to COVID-19)

2021 Hwang, A. H.-C. (forthcoming) Individuality in Human-Centered AI. In *Workshop on "HCAI: Human Centered AI."* The 35th Conference on Neural Information Processing Systems *(NeurIPS 2021)* [†].

Hwang, A. H.-C. (October 2021) Hide and seek: Choices of virtual backgrounds in video chats and their effects on perception. The 24th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2021) [†].

Hwang, A. H.-C. (October 2021) Group- and individual-level successes in human-agent teams: From trade-off to win-win. The 24th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2021) [†].

Hwang, A. H.-C. (May 2021) IdeaBot: Social Facilitation in Human-Machine Team Creativity. The ACM 2021 Conference on Human Factors in Computing Systems (CHI 2021). Yokohama, Japan[†].

Hwang, A. H.-C. (May 2021) The Virtual Background behind "Me" vs. "Us": A Cross-Cultural Study of Video-Mediated Communication. The 71st Annual International Communication Conference (ICA 2021)[†].

Hwang, A. H.-C. (May 2021) The Utility of Embodied Virtual Spaces for Academic Conferences. The 71st Annual International Communication Conference (ICA 2021)[†].

2020 Hwang, A. H.-C., (March 2020). Real or Surreal: A Pilot Study on Creative Idea Generation in MR vs. VR. 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR). Atlanta, GA[†].

Hwang, A. H.-C., (March 2020). Minimal Embodiment: Effects of a Portable Version of a Virtual Disembodiment Experience on Fear of Death. 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR). Atlanta, GA[†].

Hwang, A. H.-C., (March 2020). Pain Experience in Social VR: Comparing Companionship from Close Others and Stranger. 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR). Atlanta, GA[†].

2019   Pandita, S., Hwang, A. H.-C., Khojasteh, N., Lee, S., Resnick, H., Rives, H., Yee, J., Zhu, J. (October 2019). Hands-on Workshop in Immersive Technology for Beginners. Presentation presented at the Immersive Media in Medicine Symposium, New York, NY.

Hwang, A. H.-C. (May 2019) Interactive Data Visualization Influences Subsequent Narrative Persuasion: The Interaction Effect between Body Mass Index (BMI) and Interactivity on Transportation and Intentions to Prevent Obesity. The 69th Annual International Communication Association Conference. Washington, D.C.

Hwang, A. H.-C. (May 2019). How Interactive Storytelling Persuades: Comparing the Effects of User Engagement and Transportation. The 69th Annual International Communication Association Conference. Washington, D.C.

Hwang, A. H.-C. (February 2019). When Consumer Involvement Matters: The Effect of Interactive Music on Consumer Experience and Purchase Intention. 2019 American Marketing Association (AMA) Academic Conference. Austin, TX.

Hwang, A. H.-C. (January 2019). Moderating Effect of Price Consciousness in Interactive E-Tailing Setting: Differences between Volume Segments. 2019 The 10th International Conference on E-Education, E-Business, E-Management, and E-Learning. Tokyo, Japan.

Hwang, A. H.-C. (January 2019). The Effect of Interactive Music on High- and Low-Involvement Consumers: An Application of Dual-Process Model of Interactivity Effect. 2019 The 4th International Conference on Marketing, Business and Trade. Tokyo, Japan.

2018   Hwang, A. H.-C. (October 2018). Decomposing the Effect of Interactive Music on User Engagement and Behavioral Intention. 2018 The 3rd International Conference on Communication & Media Studies. Berkeley, CA.

Hwang, A. H.-C. (August 2018). Can Interactive Music Drive Your Online Shopping Cart? An Experimental Study of Consumer Engagement and Behavioral Intention. 2018 American Marketing Association (AMA) Academic Conference. Boston, MA.

PUBLIC TALK

AI & Design Workshop   Oct 27, 2021
Carnegie Mellon University, Technical University of Munich, and Cornell Tech
Student Research Highlights

AI in Society Workshop, Cornell University   Oct 15, 2021
Research Lightning Talk

Communication Colloquium, Cornell University   Sep 27, 2021
"IdeaBot: Social Facilitation in Human-Machine Team Creativity"

Communication Colloquium, Cornell University   May 3, 2021
"The Virtual Background behind "Me" vs. "Us": A Cross-Cultural Study of Video-Mediated Communication"

RESEARCH EXPERIENCE

Present   **VIRTUAL EMBODIMENT LAB**
            Graduate Research Assistant, Cornell University, Ithaca, NY
            PI: Dr. Andrea Stevenson Won
            - Publish peer-reviewed conference and journal papers
            - Conduct literature review and design research projects
            - Perform data analysis for quantitative and qualitative studies
            - Lead project teams and mentor undergraduate research assistants
            - Present research outcomes and perform outreach at academic conferences, workshops, and colloquiums

2017 - 2019   **CENTER FOR MEDIA ENGAGEMENT**
            Graduate Research Assistant, The University of Texas at Austin, Austin, TX
            PI: Dr. Jeeyun Oh
            - Published peer-reviewed journal and conference papers
            - Presented research projects at academic conferences
            - Constructed stimulus websites and questionnaires for online studies

2018 - 2019   **CENTER FOR HEALTH COMMUNICATION**
            Graduate Research Assistant, The University of Texas at Austin, Austin, TX
            PI: Dr. Jeeyun Oh
            - Published peer-reviewed journal and conference paper
            - Performed literature review on interactive interface techniques
            - Conducted data analysis and produced visualization for research projects

2018 - 2019   **PROGRAM OF SCIENCE COMMUNICATION**
            Graduate Research Assistant, The University of Texas at Austin, Austin, TX
            PI: Dr. Anthony Dudo
            - Conducted secondary research for a research proposal
            - Performed web mining and large-scale text analysis of open science forums

2017   **HP INC.**
            I.T. Communication Research Intern, Austin, TX
            - Conducted case studies and research on tech communication in enterprises
            - Led in-person interview to collect qualitative data
            - Designed questionnaires and implemented online studies

2017 **PANDEMIC LAB**

Social Media Analytics & Research Intern, Boston, MA

- Performed network analysis, executed social listening, and managed real-time data tracking for The Ritz-Carlton Hotel Group social media pages.
- Conducted secondary research of the tourism industry and composed audience engagement reports.

2016 **BBDO**

Marketing Research Intern, Beijing, China

- Designed questionnaires and managed online consumer research (partnered with Nielson Holdings)
- Conducted data analysis, generated data visualization, and composed market trend reports

TEACHING EXPERIENCE

2021 **LECTURER IN RECORD**

Department of Communication, Cornell University

Course taught:

- Oral Communication (Summer, 2021; Fall, 2020)

Responsibilities:

- Design syllabus, course content, and learning outcomes
- Independently teach all lectures and lab content
- Grade students' assignments and in-class performance

2020 - 2021 **GUEST LECTURE**

Department of Communication, Cornell University

Courses taught:

- Communication & Technology (Fall, 2021)
- Communication in the Virtual World (Spring, 2021)
- Visual Communication (Spring, 2020)

Responsibilities:

- Designed and delivered course content on selected topics

2019 - 2021 **GRADUATE TEACHING ASSISTANT**

Department of Communication, Cornell University

Courses taught:

- Communication & Technology (Fall, 2021)
- Communication in the Virtual World (Fall, 2019; Spring, 2020; Spring, 2021)
- Visual Communication (Spring, 2020)
- Media Communication (Fall, 2019)

Responsibilities:

Graded students' assignments and facilitated in-class discussions

2020   **GRADUATE INSTRUCTOR**
Department of Communication, Cornell University
Course taught:
- Oral Communication (Fall, 2020)

Responsibilities:
- Independently taught weekly sessions and led in-class discussions
- Graded students' assignments and in-class performance

2017 - 2018   **GRADUATE TEACHING ASSISTANT**
Stan Richards School of Advertising and Public Relations, The University of Texas at Austin
Courses taught:
- Integrated Brand Communication (Spring, 2018; Fall, 2017)
- Advertising Practicum (Spring, 2017)

Responsibilities:
- Designed exams and problem set questions
- Graded students' assignments and exams

INDUSTRY EXPERIENCE

Data Analyst   2018 – 2019
Hero Digital, Austin, TX
Conducted large-scale consumer data (>1TB) to provide data-driven business solutions and consulting services for Comcast Business, TD Ameritrade, Frontiers, Heartland Payments, and Honeywell

Strategic Initiative & Business Planning Intern   2017
HP Inc., Austin, TX
Performed business planning for HP Inc.'s acquisition of Samsung's printing services and products division

Data Analytics Intern   2017
Hero Digital, Austin, TX
Developed interactive data visualization tools and analyzed large-scale consumer data for TD Ameritrade

Marketing Technology Intern   2015 – 2016
Leverate Trading Technology, Central, Hong Kong
Performed CRM database management, analyzed large-scale consumer data, and developed B2B marketing programs across the Greater China Area

Public Relations Assistant   2013 – 2014
Pékin Fine Arts, Aberdeen, Hong Kong
Composed news press, outreaching content, and social media deliveries for artists and creative professionals, organized opening events for exhibitions, and served as bilingual interpreter at exhibitions

SERVICES

Communication Graduate Student Association Executive Board   2021 – Present
Vice President and Student Representative at the Graduate and Professional
Student Association (GPSA), Cornell University

Conference Reviewer
The ACM Conference on Human Factors in Computing Systems (CHI)   2020 – Present
ACM Conference on Computer Supported Cooperative Work and Social
Computing (CSCW)   2020 – Present
The Annual International Communication Association Conference (ICA)   2020 – Present

Ad Hoc Journal Reviewer
Cyberpsychology, Behavior and Social Networking   2019 – Present
Psychology & Marketing   2019 – Present
Journal of Leisure Research   2021 – Present
Journal of Consumer Behavior   2021 – Present

Internship Program Coordinator   2017 – 2018
Stan Richards School of Advertising and Public Relations, University of Texas, Austin

PRESS COVERAGE

Business Wire   June 29, 2021
Juji, Inc. Powers Cornell University Study on Human-Machine Team Creativity
[link]

MENTORSHIP

Research Project Leader   2019 – Present
Virtual Embodiment Lab, Cornell University, Ithaca, NY
Responsibilities:
- Instruct research protocols and data analysis methods
- Deliver short courses in statistics for research assistants with no former training
- Lead literature review and reading group discussion
- Advise undergraduate students through graduate school application processes

Undergraduate Research Assistants and Mentees:
- Emily Chin, Information Science (Fall, 2019)
- Shane Labo, Physics (Spring, 2021)
- Seungmin Lee, Information Science (Spring & Summer, 2020)
- Joshua Levine, Information Science (Fall, 2019)
- Oana Mirestean, Computer Science (Spring, Summer & Fall, 2020)
- Hal Rives, Biology (Fall, 2019)
- Yingyi Shu, Information Science (Spring, 2021)
- Yifei Wang, Communication (Summer & Fall, 2020)

SKILLS

Programming: Python, R, SPSS, SQL, MATLAB, HTML, CSS, JavaScript, SAS

Applications: Microsoft Office, Tableau, Adobe Creative Suite, MS Power BI, Final Cut Pro

Languages: Chinese – Native Language, English – Fluent, Korean – Intermediate